

WHAT IS CLAIMED IS:

1. An angle adjusting device, comprising:

a fixing seat having a first end formed with an upright rod and a second end having a first side formed with an elbow and a second side formed
5 with a pivot arm;

a handlebar stem pivotally mounted on the fixing seat and having a first end pivotally mounted on the elbow of the fixing seat;

a pull handle pivotally mounted on the handlebar stem;

an adjusting base pivotally mounted on the handlebar stem and
10 having an inside formed with a chamber having two ends each formed with an opening;

two sockets each mounted in the chamber of the adjusting base and has an inner wall having an end formed with a tapered face located adjacent to and directed toward the respective opening of the chamber of the adjusting
15 base;

two slides each movably mounted in the sockets and located adjacent to the tapered face of a respective one of the sockets;

a compression spring mounted in the sockets and urged between the two slides;

20 two urging ball units each movably mounted in the sockets and urged between the compression spring and a respective one of the two slides;

a shaft pivotally mounted on the fixing seat, extended through the sockets, the compression spring and the slides, and fixed in the sockets by the urging ball units; and

two press members each pivotally mounted on the adjusting base and
5 each having a side formed with a pressing portion rested on a respective one of the two slides.

2. The angle adjusting device in accordance with claim 1, wherein the fixing seat is substantially Y-shaped.

3. The angle adjusting device in accordance with claim 1, wherein
10 the pivot arm of the fixing seat is substantially U-shaped.

4. The angle adjusting device in accordance with claim 1, wherein the elbow of the fixing seat is formed with a pivot hole, the first end of the handlebar stem is formed with a first through hole aligning with the pivot hole of the elbow, and the angle adjusting device further comprises a bolt extended
15 through the first through hole of the handlebar stem and the pivot hole of the elbow of the fixing seat, and a nut screwed onto the bolt.

5. The angle adjusting device in accordance with claim 1, wherein the handlebar stem has a mediate portion formed with a second through hole, the adjusting base has a first side formed with an elbow formed with a pivot
20 hole aligning with the second through hole of the handlebar stem, and the angle adjusting device further comprises a bolt extended through the second through

hole of the handlebar stem and the pivot hole of the elbow of the adjusting base, and a nut screwed onto the bolt.

6. The angle adjusting device in accordance with claim 5, wherein the first side of the adjusting base has two ends each formed with a protruding pivot ear formed with a pivot hole, each of the two press members has a first end formed with a pivot hole aligning with the pivot hole of the respective pivot ear of the adjusting base, and the angle adjusting device further comprises two bolts each extended through the pivot hole of a respective one of the press members and the pivot hole of the respective pivot ear of the adjusting base, and two nuts each screwed onto the respective bolt.

7. The angle adjusting device in accordance with claim 6, wherein each of the two press members has a flattened second end formed with a through hole, and the angle adjusting device further comprises a pull wire extended through the through hole of the flattened second end of each of the two press members and having a first end secured on the flattened second end of one of the two press members and a second end secured on an end of the pull handle, so that each of the two press members is pivoted on the adjusting base by pivot of the pull handle.

8. The angle adjusting device in accordance with claim 5, wherein the adjusting base has an opened second side formed with four threaded locking holes, and the angle adjusting device further comprises a cover mounted on the second side of the adjusting base and formed with four through

holes aligning with the locking holes of the adjusting base, and a plurality of screws each extended through a respective one of the through holes of the cover and each screwed into a respective one of the locking holes of the adjusting base.

5 9. The angle adjusting device in accordance with claim 1, wherein the handlebar stem has a second end formed with a third through hole, the pull handle is formed with a pivot hole aligning with the third through hole of the handlebar stem, and the angle adjusting device further comprises a bolt extended through the third through hole of the handlebar stem and the pivot
10 hole of the pull handle, and a nut screwed onto the bolt.

10. The angle adjusting device in accordance with claim 1, wherein the two sockets are juxtaposed to each other in the chamber of the adjusting base.

11. The angle adjusting device in accordance with claim 1, wherein
15 the pivot arm of the fixing seat is formed with a pivot hole, the shaft has a distal end pivotally mounted on the pivot arm of the fixing seat and formed with a pivot hole aligning with the pivot hole of the pivot arm, and the angle adjusting device further comprises a bolt extended through the pivot hole of the pivot arm and the pivot hole of the shaft, and a nut screwed onto the bolt.

20 12. The angle adjusting device in accordance with claim 1, wherein each of the urging ball units is movable in the sockets between a first position where each of the urging ball units is urged by the tapered face of a respective

one of the sockets to lock the shaft, so that the shaft is fixed in the sockets by the urging ball units, and the adjusting base is fixed on the shaft, and a second position where each of the urging ball units is detached from the tapered face of a respective one of the sockets to release the shaft, so that the shaft is
5 movable in the sockets by detaching the urging ball units, and the adjusting base is movable on the shaft.

13. The angle adjusting device in accordance with claim 12, wherein each of the urging ball units is pushed by the elastic force of the compression spring to move in the sockets to the first position

10 14. The angle adjusting device in accordance with claim 7, wherein when the pull handle is pivoted downward, the pull wire is pulled by the pull handle, so that each of the two press members is pivoted on the adjusting base by pivot of the pull handle to move the pressing portion to press each of the two slides, to press and move each of the urging ball units to detach from the
15 tapered face of a respective one of the sockets so as to release the shaft, so that the shaft is movable in the sockets by detaching the urging ball units, and the adjusting base is movable on the shaft freely.

15. The angle adjusting device in accordance with claim 1, wherein the pressing portion of each of the two press members is arc-shaped.

20 16. The angle adjusting device in accordance with claim 1, wherein the fixing seat, the handlebar stem, the adjusting base and the shaft form a four-link mechanism, wherein the fixing seat functions as a fixing member, the

handlebar stem functions as a swinging member, the adjusting base functions as a sliding member, and the shaft functions as a floating member.